

REMARKS

A Continued Prosecution Application has been filed and Claims 9 - 22 are pending in this application. Claims 1-8 have been previously withdrawn in response to the Examiner's restriction requirement.

The Examiner rejection of Claims 9 and 12-16 over Merritt in view of Fiesser and of Claim 17 in further view of Fukuda is respectfully traversed. By this Amendment, independent claims 9, 16, and 17 have been amended to recite a non-heated, resilient sealing surface having a v-shaped profile, support for which can be found in Figs. 9a, 9b, and 9c and in the description at p. 7 line 15. New Claims 19-22 have also been added to define the included angle of the v-shaped profile as being 90 degrees.

These novel features have two distinct advantages over the prior art. The first is that the sealing surface is non-heated and it is the flat bar which comes into contact with the sealing surface that is the heated part. The advantage of this is that the film residue generally adheres to a heated penetrating surface. Since the penetrating surface is not heated in the presently claimed invention and is composed of a resilient material, the film residue does not stick it and avoids any of the problems associated with the prior art when the film sticks to the heated penetrator (i.e., build up of residue that has to be manually removed.) The second distinct advantage is that because the cutting means is made of a resilient material it deforms when coming into contact with the heated flat bar in a manner such that the mating surfaces remain in contact

throughout the severing and sealing process. Attached hereto as Exhibit A are nine (9) drawings which illustrate the severing and sealing process and, in particular, the resilient deformation of the v-shaped profile. This provides for a seal of greater integrity than that of the prior art as well as a continuous seal without the problems associated with the prior art where the two surfaces coming into contact are of a rigid nature. Rigid parts may lead to problems such as non-continuous mating surfaces where a section of the seal may not close because the two opposed surfaces did not come into contact with one another. Furthermore, with a resilient sealing surface, the high costs of creating two mating surfaces of a high tolerance are avoided.

Further regarding Claim 12 and new Claims 18 and 19, Merritt does not teach or suggest an inversion means, as now claimed. The inverter specified in Claims 12 and 18 is responsible not only for opening the packaging material but also for changing its direction of travel from horizontal to vertical. Merritt does not have inversions means, Merritt simply has guides that open the folded package so that a user can manually insert items to be sealed inside the package. In Merritt, the loading of the product to be packaged is accomplished from only one direction. In the case of Merritt, the product to be packaged can only be inserted into the packaging material horizontally. This severely limits the application and use of automatic loading devices. The advantages of such an inversion means are that the contents may be placed inside the folded film from any orientation which provides a better adaptability to automatic loading device. The orientation of Applicant's devices is such that the item to be packaged can be loaded horizontally from either the front or left or right side or can be

deposited into the packaging material from directly above. This seemingly minor differentiation significantly provides for much greater versatility particularly in fully automated operations, hence Applicant's invention is not only an improvement to Merritt but solves a long-standing need in the industry for a more convenient way of loading a product to be packaged.

Another advantage of this inversion means can be seen by looking at the complex nature of the advancement means in Shanklin, U.S. Patent No. 3,583,888. Shanklin provides for a bed comprising an advancing means which advances the package to be sealed as well as the packaged goods. It can be seen from Fig. 1 that a long bed must be provided with this advancement means and the timing for the advancement upon the cutting and sealing operation must be precise in order to separate the packages which are still in a molten state after such cutting and sealing. Applicant's inversion means alleviates the need for a long bed, the advancing means as well as the precise timing required by the prior art. Applicant accomplishes this by inverting the horizontally advancing film into a downward vertically advancing position where the goods may be inserted into the folded film in any orientation and upon the cutting and sealing process the goods are dropped into the final reception area by means of gravity. This simplified procedure alleviates the need for the complex advancement means as well as the requirement for precise timing of advancement after the cutting and sealing process. Further, without the means of horizontal advancing as in the prior art, Applicant can achieve a much smaller packaging device having a smaller surface area maximizing factory space efficiency.

The Examiner while acknowledging that the Merritt device lacks the specific type of sealer specified in the claims, states that it would be obvious to one skilled in the art to substitute the Fiesser mechanism in place of the Merritt mechanism. However, the Fiesser sealing mechanism does not mention anywhere, anything about resiliency. On page four of the Office Action, the Examiner states that "regardless of the resiliency of the unheated element, lateral resilience is always present in tools and without further structural limitation the element 39 of Fiesser is considered to be resilient". Nowhere in Fiesser's application does the word resiliency ever appear. It simply says that both bars or just the lower bar could be heated, but it is preferred to heat just the upper bar.

It is respectfully submitted that Examiner's references to prior art regarding the term "resilient" is misdirected. Nowhere in any other of the Examiner's prior art citations is it taught or suggested to provide a general v-shaped non-heated, resilient sealing surface. Additionally, the Examiner has cited Korzinek as having resilient structures. Korzinek, just as in the other prior art, uses a rigid member both for heating and penetration. But, again, what appears to be a difference in "semantics" are in fact two completely different inventions. Korzinek is merely a variation on an impulse type sealing system which has been in use since the turn of the last century. It is exactly the type of system that Applicant is attempting to get away from and improve upon. Korzinek neither teaches nor suggests, in combination with other prior art, or by itself, the newly amended claim limitations of Claims 9, 16, and 17 and newly submitted Claims 19-22.

There is also a lack of motivation to combine or substitute Fiesser's sealing surface elements 39 and 40 and Merritt's apparatus, as the design of Fiesser's sealing and severing elements 39 and 40 if applied to Applicant's system would not and could not operate. This is because they could not practically operate together. Firstly, the severing mechanism is designed in such a way that if it were to be manufactured from a resilient material it could not be heated and would be so lacking in structure as to be unable to sever the film, particularly as applied in Fiesser's patent. The novelty of this invention again, is a resilient, unheated sealing surface having a generally v-shaped profile. This is not taught or suggested in any of the cited prior art references. Nor would combining Fiesser and Merritt together collectively disclose this feature.

Claims 10 and 11 and 13 through 15 were also rejected under 35 U.S.C. §103, but are now believed to be allowable due to their dependence from Claim 9, which is now believed to be allowed as well.

Claim 17 has been rejected by the Examiner under 35 U.S.C. §112, second paragraph, for not being structurally connected to the structure in the rest of the claim and also for not being clear what the term "one relative to the other" refers to in the last line. Claim 17 has been rewritten to particularly point out and distinctively claim the subject matter which Applicant regards as the invention. The actuators are rigidly mounted to the sealing and severing means and the actuators are further coupled to the pivotally mounted members. Therefore, they are structurally connected to the sealing and severing means element in the claim. Further, the claim has been amended to clear up any ambiguity which the Examiner cited as his basis for rejection.

New Claims 18 and 19 has been added to further define the inventions of Claims 17 and 16, respectively. They track the subject matter of Claim 12.

Finally, Applicant requests a personal interview with the Examiner prior to institution of a further Office Action in this case. It is requested that the Examiner contact the undersigned attorney to arrange for a suitable time for the Application and his attorney to meet with the Examiner for an interview.

Accordingly, it is now believed that all of the claims are in condition for allowance and such action at an early date are earnestly solicited.

Respectfully submitted,

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Enclosure: Exhibit A

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 28, 2003.

By: 

Thomas M. Galgano, Esq.

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